

REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1-87 are pending in the application. Claims 1, 2, 6, 8, 24, 35, 38, 40, 50, 53, 56, 58, 69, 71, 73, 75, 78, 81, 82 and 84 have been amended. No claims have been added. No claims have been canceled.

The Examiner objected to Claim 24 as being of improper dependent form. Applicant has amended Claim 24 per the Examiner's suggestion. Accordingly, Applicant respectfully submits that the objection has been overcome by the amendments. Applicant submits that Claim 24 as amended is now in condition for allowance and such action is earnestly solicited.

Applicant has also corrected the numbering of Claim 81, which was inadvertently misnumbered as Claim 82.

The Examiner rejected Claims 8, 40, 58 and 73 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended Claims 8, 40, 58, and 73 per the Examiner's suggestion. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 112 has been overcome by the amendments. Applicant submits that claims 8, 40, 58 and 73 as amended are now in condition for allowance and such action is earnestly solicited.

The Examiner rejected claim 1 under 35 U.S.C. §102(b) as being anticipated by Vuylsteke (U.S. 5,644,662). Claim 1 as amended sets forth the following:

A method comprising:
receiving input data; and

performing multi-scale unsharp masking on the input data using different scale dependent parameters for different scales selected based on the source of the input data. (emphasis added)

As set forth above, Claim 1 requires performing multi-scale unsharp masking on the input data using different scale dependent parameters for different scales selected based on the source of the input data. Vuylsteke does not disclose multi-scale unsharp masking using scale dependent parameters selected based on the source of the input data. Therefore, Vuylsteke does not disclose all the limitations of Claim 1. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. §102(b) has been overcome by the amendments and the remarks. Applicant submits that claim 1 as amended is now in condition for allowance and such action is earnestly solicited.

The Examiner rejected claims 2-5, 10, 13, 16-20, 27-37, 47-55, 60, 66-70, 75-77 under 35 U.S.C. § 102(b) as being anticipated by Boccignone et al. Applicant respectfully disagrees. Boccignone discloses scaling of wavelet coefficients in order to normalize energy. This is well-known in the art. In contrast, the present invention as claimed in Claim 2 sets forth:

A method for processing input data comprising:
decomposing the input data into a plurality of decomposition levels by applying a wavelet transform to the input data; and
modifying coefficients in at least two of the plurality of decomposition levels, to sharpen or smooth the coefficients, by scaling coefficients in the at least two decomposition levels using different scale dependent parameters for each of the decomposition levels. (emphasis added)

Thus, Claim 2 as amended sets forth modifying coefficients in at least two of the plurality of decomposition levels to sharpen or smooth the coefficients. Boccignone does not disclose sharpening or smoothing coefficients by modifying coefficients through the use of different scale dependent parameters to scale different decomposition levels. In fact, Boccignone is silent with respect to such sharpening or smoothing. Therefore, Boccignone does not disclose all the limitations of Claim 2. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. §102(b) has been overcome by the amendments and the remarks.

Similar limitations may be found in Claims 35, 53, 69, 71, 75, and 82 as amended. Therefore, for the same reasons, Applicant submits that Claims 35, 53, 69, 71, 75, and 82 as amended is now in condition for allowance and such action is earnestly solicited.

Also, the claims that depend on Claims 2, 35, 53, 69, 71, 75, and 82 are also not anticipated by Boccignone for the same reasons give above.

Thus, Applicant respectfully submits that claims 2-5, 10, 13, 16-20, 27-37, 47-55, 60, 66-70, 75-77 as amended are now in condition for allowance and such action is earnestly solicited.

The Examiner rejected claims 8-9, 40-41, 58-59, 73-74, 80-81 under 35 U.S.C. § 103(a) as being unpatentable over Boccignone in view of Shimizu (US 5,774,578). Applicant respectfully disagrees with the Examiner. While Boccignone discloses wavelet transforms and their resulting coefficients, Shimizu discloses performing image correction in the pixel domain. Applicant respectfully submits that one skilled in the art would not look to art such as Shimizu regarding performing image correction in the pixel domain when applying techniques in the wavelet domain. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 103(a) has been overcome by the amendments and the remarks. Applicant submits that claims

8-9, 40-41, 58-59, 73-74, 80-81 as amended are now in condition for allowance and such action is earnestly solicited.

The Examiner rejected claims 11-15 under 35 U.S.C. § 103(a) as being unpatentable over Boccignone in view of Vetterli et al. Applicant respectfully disagrees with the Examiner. Vetterli merely discloses types of transform that may be achieved with oversampled filter banks. Applicant respectfully submits that one skilled in the art would not look to art such as Vetterli to select a particular transform to utilize with the disclosed scaling of Boccignone. This appears to be the use of hindsight by the Examiner, which would not be permissible. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 103(a) has been overcome by the amendments and the remarks. Applicant submits that claims 11-15 as amended are now in condition for allowance and such action is earnestly solicited.

The Examiner rejected claims 21-26, 42-46, 61-65 under 35 U.S.C. § 103(a) as being unpatentable over Boccignone in view of Choi et al. As discussed above, Boccignone does not disclose sharpening or smoothing coefficients by modifying coefficients through the use of different scale dependent parameters to scale different decomposition levels. Choi does not overcome this deficiency. Choi discloses wavelet denoising. In view of this, Applicant respectfully submits that the combination of Boccignone and Choi does not render obvious the present invention as claimed in Claims 21-26, 42-46, 61-65. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 103(a) has been overcome by the amendments and the remarks. Applicant submits that claims 21-26, 42-46, 61-65 as amended are now in condition for allowance and such action is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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